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EXAMINER

ADDISU, SARA

ART UNIT PAPER NUMBER

3722

DATE MAILED: 03/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.



### **DETAILED ACTION**

This Office Action is in response to the amendment filed 10/14/05. Claims 1-25 are pending in this application.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claim 4, line 2, recites the limitation "the at least two arm extensions" and "the at least one tongue". There is insufficient antecedent basis for these limitation in the claim.
2. Claims 11 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 11, line 9 recites "wherein the cutter is positionable at any acute angle during operation" and claim 20 line 6 recites "..positionable in any desired position within an acute angle during operation". IT is not clear how the swivel member changes position during operation. Applicant has not defined "operation".

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

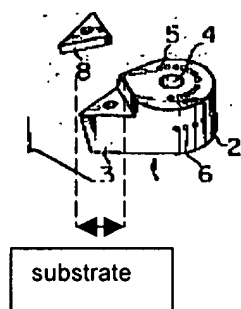
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-10 and 19 are finally rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki (U.S. Patent No. 4,057,884).

Suzuki teaches a tool having an elongated shank (arm) (11) (which gets held/clamped by a tool carriage “keeper”, Col. 2, lines 66-68), a tool bit supporting member (swivel member) (1) with series of indexing recesses (5) spaced from each other at an angle of 15 degrees over a range of 180 degrees (i.e. capable of adjustably positioning the swivel member at an acute angle, between 0 and 35 degrees, to the longitudinal axis), a coupler for removably connecting the arm to the swivel member and locking means to position the removable tool bit (8) that is located on the leading end of swivel member (see Figure 1 and Col. 2, lines 30-32). Regarding claims 1 and 19, Examiner points out that the series of indexing recesses are spaced apart by an angle of 15 degrees, defining range of positions and one can select a desired positions by selecting a positions from one of the range of positions. The 15 degree apart recesses also permit the swivel member to be adjustably positioned. The difference in angle of each recess means there is variable pivotal movement. Suzuki also teaches one end of

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the elongated shank (arm) (11) having spaced limbs with opposing bores (a plurality of monolithically formed bar extensions) (12 & 13) to create a recess (slot) (15) to rotatably receive body portion (monolithically formed tongue) (2) formed at one end (i.e. trailing end) of the swivel member (1). [Merriam-Webster Online Dictionary defines monolithic as: cast as a single piece/ consisting of or constituting a single unit]. Furthermore, Suzuki teaches the body portion (tongue) (2) having a bore (4) {which is substantially equivalent to the opposing bores of bar extensions 12 & 13}, and a generally cylindrical shape (i.e. the curved portion constituting partially beveled) accompanied with series of indexing recesses (6) for restricting movement of the swivel member (1). Additionally, Suzuki teaches a tool (key) (27) and locking means that include tightening bolt (connector) (16) that extends between bore (4) of the swivel member (1) and the opposing bores of limbs (12 & 13) (See Figures 1 & 2). Suzuki also teaches a swivel member having a substrate to which the tool bit (8) is removable mounted (see diagram below). Figures 1, 3 and 4 show the substrate and the tool bit having variable dimensions (e.g. triangular, circular and diamond shaped).



***Claim Rejections - 35 USC § 102 & 103***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 11-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Suzuki (U.S. Patent No. 4,057,884), or, in the alternative, under 35 U.S.C. 103(a) as obvious over Suzuki (U.S. Patent No. 4,057,884) in view of Fisher (USP 4,097,181).

Suzuki teaches a tool having an elongated shank (arm) (11) formed with a slot (15) and bar extensions (12, 13), a tool bit supporting member (swivel member) (1) with series of indexing recesses (5) spaced from each other at an angle of 15 degrees over a range of 180 degrees (i.e. capable of adjustably positioning the swivel member at an acute degrees (i.e. capable of adjustably positioning the swivel member at an acute angle, between 0 and 35 degrees, to the longitudinal axis) and a coupler for removably connecting the arm to the swivel member, as set forth in the above rejection. Regarding claim 12, Suzuki teaches the end of the elongated shank (arm) (11) having spaced limbs with opposing bores formed bar extensions (12 & 13) ('884, figure 1). Regarding claim 13, Suzuki teaches the body portion (tongue) (2) having a bore (4) {which is substantially equivalent to the opposing bores of bar extensions 12 & 13}. Furthermore, the language "any desired acute angle" is not limited to endless angles. Suzuki has multiple acute angle positions. The term "any" could mean any of the predetermined positions.

In the alternative, if it is argued Suzuki fails to teach the cutter being positionable at any acute angle during operation,

Fisher teaches a variably positionable tool comprising an arm (3) having a bar extension (7), a swivel member (9) having a cutter (13) detachably mounted on it's trailing end. The swivel member (9) is rotatably attached to the bar extension (7) using

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bolt (21) ('181, figures 1-3). Fisher also teaches the swiveling member (9) being able to rotate in any predetermined adjusted angular position ('181, Col. 1, lines 58-62).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Suzuki such that its swivel member would have the capability to rotate in any predetermined adjusted angular position, as taught by Fisher for the optimizing the tools machining capacity by allowing it to make a cut of any desired size within a certain range depending upon the operation to be performed and the size of cut to be made ('181, Col. 2, line 66 through Col. 3, line 15).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (U.S. Patent No. 4,057,884).



Suzuki discloses the claimed invention except for, the swivel member being formed with a slot between two extensions and the arm formed with a tongue. It would have been obvious to one having ordinary skill in the art at the time of the invention was made reverse the location of the two extensions (having a bore) with the tongue (having a hole), because the connection between the two parts is equally functional, it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. Applicant should further note that Specification gives no criticality to the claimed limitation nor is there any unexpected results from the reversal of parts (see Page 6, lines 19-25).

4. Claims 14-17 are finally rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (U.S. Patent No. 4,057,884) in view of Fisher (USP 4,097,181).

Suzuki teaches a tool with an arm, swivel member having a cutter as set forth in the above rejection. Suzuki also teaches a swivel member having a substrate to which the tool bit (8) is removable mounted, as set forth in the above 102 (b) rejections. Regarding claim 14, Suzuki discloses the claimed invention except for the hole of the swivel member (the tongue) being threaded. It would have been obvious to one having ordinary skill in the art at the time the invention was made to threads the through hole of

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the tongue such that it receives a bolt (connector) with more threads for the purpose of having stronger engagement between the two parts such that the swivel member would be held in place firmly and won't get loose during vibration thus giving a better finish on the workpiece, since it has been held that mere duplication of essential working parts of a device involves only routine skill in the art (i.e. duplicating the threading of the upper limb (13) to engage with the threaded part of the bolt).

5. Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (U.S. Patent No. 4,057,884) in view of Fisher (USP 4,097,181) and further in view of Turos (U.S. Patent No. 6,279,919).

The modified device of Suzuki teaches a tool with an arm, swivel member having a cutter and being able to rotate in any predetermined adjusted angular position, as set forth in the above rejection.

However, the modified device of Suzuki fails to teach workpiece on a rotatable shaft (brake lathe adapter system).

Turos teaches the use of a brake lathe adapter system to secure a brake rotor to a rotatable shaft of a lathe ('919, Col. 1, lines 17-20). Turos also teaches the use of cutting tool to refinish or resurface the secured brake rotor ('919, Col. 2, lines 22-28).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to adapt Suzuki's invention to the brake lathe system as

taught by Turos' for the purpose of machining a workpiece (e.g. brake rotor) ('919, Col. 1, lines 22-24).

6. Claims 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (U.S. Patent No. 4,057,884) in view of Fisher (USP 4,097,181) and further in view of Turos (U.S. Patent No. 6,279,919) and Gifford et al. (U.S. Patent No. 1,435,288).

The modified device of Suzuki teaches a tool with an arm, swivel member having a cutter as set forth in the above rejection. Suzuki also teaches threads within at least one of the hollow bores of the arm (i.e. bar extension 13).

However, the modified device of Suzuki fails to teach the arm of the tool having a hexagonal cross section.

Gifford et al. teaches a tool having a rod/handle (11) having a hexagonal shape (See Figure 1& 2 and Page 2, left col., line 28).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Suzuki's invention such that the arm has a hexagonal cross-section as taught by Gifford et al. for the purpose of providing ease of grip/handling.

### ***Response to Arguments***

Applicant's arguments filed 10/14/05 regarding claims 1-10, 18 and 19 have been fully considered but they are not persuasive.

Regarding independent claims 11 and 20, the amendments filed 10/14/05, read over the prior art therefore Applicant's arguments are moot in view of the new ground(s) of rejection.

1. Applicant contends that the rejected claims are improper because Suzuki lacks the "tongue". However, Examiner respectfully disagrees. Claim 1 lacks any "tongue" language. Applicant is requested to put the "tongue" language in Claim 1. As to Claim 11, given the broadest reasonable interpretation, the term "tongue" can be defined as "a smaller end portion that fits into a corresponding slot to make a joint".
2. Regarding claims 1 and 19, in response to Applicant's assertion on page 11, lines 29-30, that " *The indexing means permit only indexing pivotal movement, not variable pivotal movement.* Additionally, applicant's assertion on page 12, lines 16-20, "*Applicant's claim 1 expressly provides that the coupler is formed to adjustably position the swivel member at an acute angle to the longitudinal axis through the arm, and also means for locking the swivel member and cutter into a range of desired positions during shaping operations.*", Examiner points out that the series of

indexing recesses are spaced apart by an angle of 15 degrees, defining range of positions and one can select a desired positions by selecting a positions from one of the range of positions. The 15 degree apart recesses also permit the swivel member to be adjustably positioned. The difference in angle of each recess means there is variable pivotal movement. Continuing, lines 31-32 recites *"Applicant's swivel member, however, can be positioned at any desired acute angle. The shaping tool may be locked into variable desired positions and attitudes during operation."* Examiner points out that independent claims 1 and 19 do not include the limitation any desired acute angle therefore broadly reading the claims, Suzuki reads on the claimed limitation "adjustably position the swivel member", (note: Independent Claims 11 and 20 have been amended to include this limitation).

3. Regarding claim 18, in response to Applicant's assertion on page 14, lines 18-21, that *"In teaching a series of indexing recesses spaced from each other at an angle of 15 degrees over a range of 180 degrees that serve to allow only limited ratchet-like pivotal movement of the body portion into predetermined fixed positions, the Suzuki Patent does not teach or suggest a swivel member that is variably positionable at any desired acute angle"*, please refer to the explanation above (regarding claims 1 and 19).

Furthermore, the language "any desired acute angle" is not limited to endless angles. Suzuki has multiple acute angle positions. The term "any" could mean any of the predetermined positions. " Examiner points out that independent claim 18 does not include the mentioned limitation. In face, claim 18, line 9 only recites "means for removably and rotatably mounting the swivel member in the slot". Therefore broadly reading the claim, Suzuki reads on the claimed limitation "removably and rotatably mounting the swivel member".

4. Regarding claim 18, in response to Applicant's argument on page 15, lines 26-28, that "Accordingly, the premise of the Examiner's rejection of independent claim 18 – that Suzuki discloses the claimed invention except for the swivel member formed a slot (sic, a slot formed in the swivel member" -- is incorrect. Claim 18 therefore is allowable", Examiner respectfully points out that this was a typo and should not be a basis for allowance.
5. Regarding claim 18, in response to Applicant's assertion on page 15, line 29 through page 16, lines 7) that "*Examiner's mere reversal argument seems to suggest that Applicant is not entitled to claims to more than one embodiment*", the same explanation applies as the one stated in the previous office action (mailed 7/27/05), under Response to Arguments,

page 10, second paragraph. As mentioned before, it is respectfully submitted that the Examiner is not arguing the Applicant's entitlement to more than one embodiment but emphasizing the modification (reversal of parts) being obvious. Applicant's argument addresses "entitlement of more than one embodiments" and does not address the rejection of reversal of parts therefore is not germane to the rejection.

6. Regarding claim 22, in response to Applicant's assertion on page 20, lines 4-8 that *"In addition, The Examiner argues that the Gifford Patent (teaches a tool having a rod/handle (11) having a hexagonal shape, and concludes that it would have been obvious to combine the hexagonal shape with the Suzuki Patent and Turos Patent for the purpose of providing ease of grip/handling. Nothing stated in the Gifford Patent provides any reason for the hexagonal shape"*, Examiner asserts that the fact that a structure having a hexagonal shape prevents rotation about its longitudinal axis, increases ease of grip and in a coupling environment facilitates engagement, is old and well known in the machining environment as well as other unrelated devices (such as the handle of dumbbells).
7. Regarding the "Declaration" submitted 5/13/05, Examiner has taken them into consideration but is insufficient to overcome the rejection of claims 1-

25 based upon 35 U.S.C. 103(a) and 35 U.S.C. 102 , as set forth in the last Office action because:

It states that the claimed subject matter solved a problem that was long standing in the art. However, there is no showing that others of ordinary skill in the art were working on the problem and if so, for how long. In addition, there is no evidence that if persons skilled in the art who were presumably working on the problem knew of the teachings of the above cited references, they would still be unable to solve the problem. See MPEP § 716.04.

Exhibit A and Exhibit B submitted mention the “shaping tool” of the instant application receiving an award by Undercar Digest in 2003 for being Top 10 Tools. The Exhibits do not give details of what type of tools and the number of tools that entered the contest, what the criteria was for objectively judging the functionality of the tools to be nominated Top 10 etc.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within



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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sara Addisu at (571) 272-6082. The examiner can normally be reached on 8:30 am - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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